

**ABSTRACT OF THE DISCLOSURE**

A method and apparatus for displaying substantially noise-free segments of serial data waveforms. The method comprises the steps of dividing an acquired waveform into a plurality of waveform slices and categorizing each of the plurality of waveform slices according to at least a sequence of N bit values prior to a bit value being observed. The  
5 waveform slices in each category are then averaged resulting in an average pattern for each category. Each of said averaged patterns is then displayed on a display in an overlaid manner.